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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

KOCH, GEORGE R

ART UNIT

PAPER NUMBER

1734

DATE MAILED: 07/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-5

Office Action Summary

Application No.

09/786,045

Applicant(s)

VOGT, WERNER

Examiner

George R. Koch III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 13-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 14 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: structure or means for creating pressure and heat.

4. The term "slightly" in claim 14 (lines 3-4) is a relative term which renders the claim indefinite. The term "one of at most only slightly" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

5. Claim 23 recites the limitation "its transitional boundary edge" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

7. Claims 14 is rejected under 35 U.S.C. 102(b) as being anticipated by Okada et al (US Patent 5,468,315).

Okada discloses an apparatus capable of creating card shaped information carriers (Okada discloses mold dimensions of 100.1 mm by 100.1 mm, as in column 3, lines 61-67, which is taken to be "card-shaped"). Okada's apparatus comprises a frame defining a cavity (item 4), the peripheral region of the frame consisting of a material which does not conduct heat.

Claim Rejections - 35 USC § 103

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8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE-92,18,985 in view of Okada (US 5,468,315).

DE-92,18,985 discloses a method for producing a card shaped information carrier involving covering the surface of a card size region of blank material with a transparent layer (see Claim 1). The layer is pressed onto the surface of the card while being subjected to heat and pressure simultaneously (claim 6). For positioning and receiving the card to be laminated, DE-92,18,985 further discloses a hollow mold-like frame that can be placed on base plate for receiving cards or templates to be laminated and a top plate that can be set on the card in the frame (see claim 10, for example).

DE-92,18,985 does not disclose in a peripheral narrow outer boundary region of the inserted template quantities of heat flowing off per se there are retained, blocked in, and concentrated back on the template.

Okada discloses an apparatus for applying heat and pressure to laminates wherein a blocking structure (item 4) which covers the peripheral, narrow, outer boundary of the inserted template. One in the art would appreciate that this structure retains, "blocks ins", reflects and concentrates the heat back onto the template, in addition to improving template layer retention. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized the blocking structure of Okada in the overall method of DE-92,18,985 in order to reduce the heat loss of the method and apparatus, thus improving the overall efficiency.

As to claim 13, DE-92,18,985 discloses that the laminate template includes a plurality of sized card layers (best seen in Figure 2, elements 6 and 5).

11. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada in view of XP-002128554.

Okada discloses an apparatus capable of creating card shaped information carriers (Okada discloses mold dimensions of 100.1 mm by 100.1 mm, as in column 3, lines 61-67, which is taken to be "card-shaped"). Okada's apparatus comprises a frame defining a cavity (item 4), and that the frame has internal dimensions which correspond to the final dimensions.

Okada does not disclose that the frame, or side structure, is designed to have peripheral regions which consist of a material which is slightly heat conducting, reflects heat and concentrates heat back onto an inserted laminated.

XP-002128554 discloses that it is useful to include thermally insulated plates, i.e., a frame made of a slightly heat conducting material, positioned around the hot plates, and further including a heat reflective layer. This structure would reflect heat and concentrate heat back onto the laminate. XP-002128554 further discloses that the heat radiation and heat dispersion are reduced due to this structure. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have made the frame of Okada out of a slightly heat conductive material as suggested by XP-002128554 in order to reduce heat radiation and dispersion and improve lamination operation.

As to claim 15, Okada discloses heating plates (see Figure 1 or 3, for example), which are arranged on both sides of the frame and forming a cavity for the laminating process.

As to claim 16, both of Okada's heating plates have external dimensions that correspond to internal dimensions of the frame, and are capable of being inserted by a prestressing action.

12. Claims 17- 20 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada and XP-002128554 as applied to claims 14, 15, and 16 above, and further in view of Vogt (US patent 5,399,223).

As to claim 17, Okada discloses that the heating plates include an upper and lower heating plate (item 6 and surrounding structure), and that the lower plate has external dimensions corresponding to the frame (item 4).

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Okada does not disclose a cooling structure.

Vogt discloses a cooling body (item 21a) which is inserted into a frame (items 19a and 19b) which is used in a process for laminating identification cards. The addition of this cooling body with the Peltier effect is disclosed as enabling the cooling effect to be enhanced in a particularly efficient way (column 5, lines 1-7). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included a cooling body as suggested by Vogt in order increase the efficiency of the cooling and improve the operation speed.

As to claim 18, Okada discloses that both heating plates have dimensions that correspond to the internal dimensions of the frame.

Okada and XP-002128554 do not disclose that one of the heating plates is insertable into the frame by a means for prestressing acting on the cooling body adjacent to the lower heating plate.

Vogt discloses that the lower plate (Figure 1, item 17) is insertable into the frame (Figure 1, items 19a and 19b) by means of a prestressing action created by springs 24, which are acting upon both cooling body (item 21a) and lower plate (17). Vogt further discloses that these springs provide sufficient laminating pressure for the lamination operation (specifically recited in column 8, lines 18-31). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included structure for inserting the lower heating plate in order to provide sufficient laminating pressure and improve lamination efficiency.

As to claim 19, Okada clearly discloses a lid structure in Figures 1 and 3. The portion of plate 2 which is disposed above frame 4 functions as a lid structure.

As to claim 20, Okada discloses pressure producing means for pressing the frame and upper heating plate firmly together (see element 5 in Figure 3).

As to claim 23, Okada discloses frame prestressing means for pressing the frame against the boundary lip of the upper heating plate (see element 5 in Figure 3).

As to claim 24, Okada discloses that these prestressing means are supported on the heater block.

Okada does not disclose supporting the frame via any structure on top of the cooling block.

Vogt discloses supporting the frame by means of prestressing structures such as screws (item 20, see column 9, lines 39-46) which are disposed on the cooling block. One in the art would appreciate that disposing the frame on the cooling block rather than directly attaching it to the heating structures would prevent overheating of the springs of Okada, thus improving the apparatus life. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated attachment of the frame to the cooling block in order to prevent overheating of the less durable springs which form the stressing means.

13. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada, XP-002128554, and Vogt as applied to claim 19 above, and further in view of Honda (US patent 4,675,066).

Okada discloses contacting the upper heating plate and the frame (Figures 1 and 3, for example).

Okada, XP-002128554, and Vogt as applied to claim 19 above do not disclose that the frame has a reduction in material in a transitional edge region.

Honda discloses various side structures (such as element 5 in Figures 1, 2 and especially element 6 in Figures 3, 4) which disclose frame structures with reduction of material in a transitional edge region. Honda discloses that such a profile allows for sealing the gap between the pressing structures and improves the heat and pressure lamination operation. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated such a profile in the connection of the frame and upper heating press of Okada (as modified by XP-002128554, and Vogt) in order to improve contact between the frame and the heating plate and thus improve the heat lamination operation.

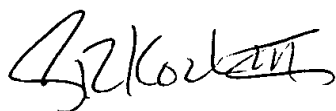
As to claim 22, Honda discloses the reduction in material being formed by a peripheral outer annular recess (see element 6 in Figures 3 and 4).

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R. Koch III whose telephone number is (703) 305-3435 (TDD only). If the applicant cannot make a direct TDD-to-TDD call, the applicant can communicate by calling the Federal Relay Service at 1-800-877-8339 and giving the operator the above TDD number. The examiner can normally be reached on M-Th 10-7.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (703) 308-3853. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



George R. Koch III
July 10, 2002



RICHARD CRISPINO
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TECHNOLOGY CENTER 1700